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#192 — 30th Ann. Rpt. 1918
#198 — 31/32 Ann. Rpts 1919/1920
#203 — 33d Ann. Rpt 1921
#208 — 34th Ann. Rpt. 1922

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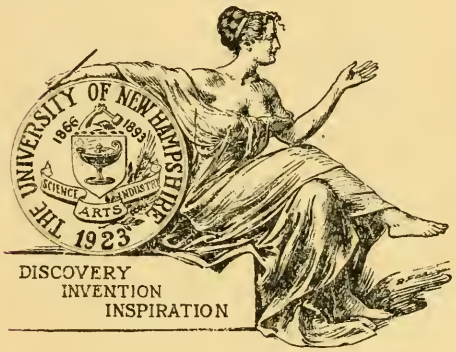

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RESULTS OF SEED TESTS

Made July 1, 1921 to June 30, 1922

In the annual seed inspection work of the year, 387 samples of seeds were taken throughout the state by an agent of the State Department of Agriculture and forwarded to the State College laboratory for testing. After omitting all samples damaged in the mail together with a limited number on which the tests persisted in developing irregularities, results on 301 different samples were secured and are reported in this bulletin.

Fewer samples were purposely collected and tested this year than last due to a realization of the fact that the same company ships seeds of the same brand and quality to different parts of the state which come from the same original supply. If a sample of one of these lots is tested and found satisfactory, there is no good reason to suppose that the same brand of seed shipped elsewhere is going to be much different. This, of course, assumes that the inspector will secure samples in new places from year to year. In this way we hope to get the state seed service perfected so that the discovery of an inferior sample in one place will result in looking up all other shipments from the same source.

The customary variations in germination and purity are taken into consideration in this report as outlined in the Rules and Regulations relative to the Provisions and Enforcement of the Law Governing the Sale of Agricultural Seeds. These rules apply under the new seed law passed at the last session of the legislature. This law is recorded as Chap. 80—Session laws of 1921, and copies of the same together with the "Rules and Regulations" may be seen in last year's seed bulletin, or obtained by writing the State Depart-

ment of Agriculture at Concord, or the State Seed Laboratory at Durham.

Results of tests that fall within the variations allowed are indicated as "satisfactory" and those that are better than the guarantee are indicated as "above."

In addition to the above tests on official samples, more seeds were received for testing from individuals and dealers than usual. This work is done free of charge for farmers and dealers within certain limitations as outlined in the "Rules and Regulations." This service may be used by farmers to make sure that home-grown seed is desirable and by farmers and others who wish to sell seed in compliance with the law. From such sources 244 samples of seed were received and tested this year. Unfortunately, a few were received which failed to supply either the name or the address of the sender. This caused delay or disappointment as these samples were tested and the results necessarily held in anticipation of an inquiry from the sender.

The purchase of new equipment and contemplated reorganization of the seed testing laboratory work with the backing of the new State Seed Law, above mentioned, should enable us to give quicker service and to materially strengthen this type of inspection in the coming year. There are many misconceptions about the seed testing work, however, that are not confined to those who have never thought about the matter, but may include others who have even experimented to the extent of testing corn and beans.

Some seeds not only require peculiar methods and apparatus but consume extremely long periods of time for proper investigation. Unfortunately, this statement is particularly applicable to the smaller grass seeds which are so vital to successful agriculture in New Hampshire. These grasses often require special light germinators and alternating temperatures run-

ning at the lower temperature for eighteeen hours and at the higher temperature for six hours each day. Most seeds require rather definite and constant temperatures, accompanied by certain prescribed moisture conditions. Should any one of these conditions be temporarily out of adjustment, it may result in the loss of a whole set of tests. With extremely long tests, ventilation and sterilization must be most carefully regulated to prevent molds from vitiating the results.

A large proportion of our agricultural seeds can be tested in about five days. The sprouts are counted at the end of three days for a preliminary reading and finally at the end of five days as a figure for the total viability. Duplicate tests must be run, however, and if the two tests vary to any appreciable extent the seed must be run again to get more results for averaging. If the test is repeated, it means at least ten days and more often fourteen before the proper result can be obtained. This, with the time of sending the seeds and the reports through the mail, means the consumption of at least two weeks' time. Add to this the disadvantage of having a large proportion of the seeds coming in during four or five weeks in the spring so that a sample cannot always be given attention the day it arrives, and you have the basis for some delays in making reports.

The real difficulties develop with some of the grasses which may take longer periods of time for germination. Timothy seed requires eight days for germinating. Red top requires at least ten days and is often run for twenty or more by the most careful laboratories. Vetch requires fourteen; the fescues, twenty-one; and blue-grasses, twenty-eight days for a single test. Perhaps these illustrations may serve to explain some of the physical limitations in reporting the results of seed tests.

Errata

Our attention has been called to an error in Bulletin No. 202 in which last year's seed tests were reported. Ace brand, Red top sample No. 3469, on page 12, is shown with a purity guarantee of 96%. The Albert Dickinson Company states that this brand of Red top is sold under a purity guarantee of about 90% and that this particular lot was tagged exactly 90%. Doubtless, the inspector either misread or made a mistake in copying the figure. The guarantee for purity should read 90 and the purity found should read "S."

SEED EXAMINATION, 1922

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3970	ALFALFA (*Turkestan*) ..... Abbott Grocery Co., Keene, N. H.	A	99	53.5	90
3811	ALFALFA (*Krop-King*) ..... Cash Grocery, Dover, N. H.	S	99	86	95
4039	ALFALFA (*Northern*) ..... Kendall & Wilkins, Milford, N. H.	A	99	A	93
4047	ALFALFA (*Grimm*) ..... Kendall and Wilkins, Milford, N. H	S	99.6	A	90
3698	ALFALFA ..... John B. Varick Co., Manchester, N. H.	A	99	A	85
3719	ALFALFA ..... John B. Varick Co., Manchester, N. H.	A	99	A	88
4010	ALSIKE (*24568*) ..... Abbott Grocery Co., Keene, N. H.	A	95.3	A	85
3784	ALSIKE (*Pine Tree, 92818*) ..... Ayers & Jenkins, Rochester, N. H.	A	97.7	92	..
3919	ALSIKE ..... O. A. Brown, Ashland, N. H.	A	95	S	90
3919a	ALSIKE ..... W. B. Brown, Ashland, N. H.	A	96	91	..
3900	ALSIKE (*Pan Amer.*) ..... Bryant & Lawrence, Tilton, N. H.	A	97	A	88
3909	ALSIKE (*White Mt.*) ..... A. F. Burtt Co., Plymouth, N. H.	A	98.5	S	92
3815	ALSIKE ..... Carr's Cash Grocery, Dover, N. H.	A	97.5	S	94
4019	ALSIKE (*2161*) ..... J. Cushing Co., Keene, N. H.	A	94 9	A	88
4015	ALSIKE (*Prime*) ..... Geo. H. Eames & Son, Keene, N. H.	A	94.5	S	91
3775	ALSIKE (*Pan Amer.*) ..... Eugene C. Foss Co., Rochester, N. H.	A	97	A	90
3743	ALSIKE ..... Virgil P. Hersey & Co., Somersworth, N. H.	S	98	A	90
3973	ALSIKE (*White Mt.*) ..... Holbrook Grocery Co., Keene, N. H.	A	98 5	S	92
4022	ALSIKE (*C. M.*) ..... Hopkins Bros. & Belcher, Greenfield, N. H.	A	95	A	90
4087	ALSIKE (*Ace, 21103*) ..... C. H. Jameson, Colebrook, N. H.	A	94.5	S	91
4091	ALSIKE (*Emerson*) ..... J. H. Kinney, Claremont, N. H.	A	94.5	S	91
3731	ALSIKE (*Choice*) ..... Manchester Hardware Co., Manchester, N. H.	A	97	A	91
3991	ALSIKE (*Fancy*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	A	97	S	90
3826	ALSIKE (*Ace, 2162*) ..... J. H. Morrill, Laconia, N. H.	A	95	S	94
4078	ALSIKE (*Emerson*) ..... Nashua Beef Co., Nashua, N. H.	A	85	A	85
3876	ALSIKE (*Eureka*) ..... F. W. Neal, Dover, N. H.	96.3	98	S	90
4066	ALSIKE (*Emerson*) ..... W. F. Peel, Nashua, N. H.	A	97	S	86

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3958	ALSIKE (*XXX*) ..... A. D. Potter & Co., Winchester, N. H.	A	93	38	..
3835	ALSIKE (*2161*) ..... Rand & Dearborn, Laconia, N. H.	A	95	A	90
3847	ALSIKE (*Liberty, 3652*) ..... Read-Esty Co., Farmingon, N. H.	A	95.75	S	95
3911	ALSIKE (*Pan Amer.*) ..... J. E. Reed & Son, Ashland, N. H.	S	98.5	A	90
3838	ALSIKE (*Pan Amer.*) ..... H. C. Sanborn, Laconia, N. H.	A	97.5	S	90
3809	ALSIKE ..... J. H. Seavey, Dover, N. H.	A	95.15	S	95
3902	ALSIKE ..... Shepard Bros., Franklin, N. H.	A	94	A	85
3745	ALSIKE ..... Somersworth Grain Co., Somersworth, N. H.	A	95	A	85
3886	ALSIKE ..... C. P. Stevens, Franklin, N. H.	A	94.5	A	91
3697	ALSIKE ..... John B. Varick Co., Manchester, N. H.	A	96.7	S	90
3942	ALSIKE (*White Mt.*) ..... Weeks & Smith, Meredith, N. H.	A	98.5	S	92
3769	BARLEY (*Oderbrucker*) ..... Ayers & Jenkins, Rochester, N. H.	90.9	97.14	S	98
4012	BARLEY (*Beardless*) ..... George H. Eames & Son, Keene, N. H.	A	99	A	98
3774	BARLEY (*2-row*) ..... Eugene C. Foss Co., Rochester, N. H.	A	98	74	90
3971	BARLEY (*Beardless*) ..... Holbrook Grocery Co., Keene, N. H.	S	99	S	95
3980	BARLEY (*Monadnock, 6-row*) ..... Holbrook Grocery Co., Keene, N. H.	A	97.5	A	95
3981	BARLEY (*White Mt., 6-row*) ..... Holbrook Grocery Co., Keene, N. H.	S	99	S	96
4088	BARLEY (*1112, 6-row*) ..... C. H. Jameson, Colebrook, N. H.	A	98.8	91	..
3823	BARLEY (*Montana, 12-row*) ..... C. L. Jenness, Dover, N. H.	A	98	A	90
4040	BARLEY (*Montana*) ..... Kendall & Wilkins, Milford, N. H.	A	97	72.5	96
3729	BARLEY (*112, 6-row*) ..... Manchester Hardware Co., Manchester, N. H.	A	96	S	97
4002	BARLEY (*6-row*) ..... J. J. Moreau & Son, Manchester, N. H.	S	98	S	90
3867	BARLEY (*6-row*) ..... F. W. Neal, Dover, N. H.	A	98	A	90
4062	BARLEY (*Hy-Grade Wisconsin, 6-row*) W. F. Peel, Nashua, N. H.	S	99	A	90
3804	BARLEY ..... J. H. Seavey, Dover, N. H.	A	97.07	A	96
3983	BARLEY (*Montana*) ..... Shepard Bros., Franklin, N. H.	A	97	S	96

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3748	BARLEY (*6-row*) ..... Somersworth Grain Co., Somersworth, N. H.	A	97.29	A	96
3753	BARLEY (*Hy-Grade Wisconsin, 6-row*) Strafford Co. Grain Mill, Rochester, N. H.	S	99	A	90
3890	BARLEY (*113*) ..... C. P. Stevens, Franklin, N. H.	A	97.8	A	94
3926	BARLEY (*111, 6-row*) ..... Thompson & Hoague, Concord, N. H.	A	99.5	S	98
3715	BARLEY (*6-row*) ..... John B. Varick Co., Manchester, N. H.	A	97.5	A	98
4030	BARLEY (*6-row, Fancy*) ..... Walbridge & Taylor, Peterboro, N. H.	A	98	A	90
3830	BARLEY (*2-row, 1181*) ..... E. T. Willson, Farmington, N. H.	A	94.68	S	97
4048	BEETS (*Mangel Wurzel*) ..... W. F. French, Milford, N. H.	..	..	S	68
4049	BEETS (*Mangel Wurzel*) ..... W. F. French, Milford, N. H.	..	..	A	56
3718	BEETS (*Mangel Wurzel*) ..... John B. Varick Co., Manchester, N. H.	A	97	S	93.3
4071	BUCKWHEAT (*Japanese*) ..... Hill Hdw. & Paint Co., Nashua, N. H.	A	98	A	90
3998	BUCKWHEAT (*Japanese*) ..... Holbrook Grocery Co., Keene, N. H.	95.4	97.97	S	96
3730	BUCKWHEAT ..... Manchester Hdw. Co., Manchester, N. H	A	97	A	91
4004	BUCKWHEAT ..... J. J. Moreau & Son, Manchester, N. H.	A	98	A	90
3839	BUCKWHEAT (*Japanese*) ..... J. H. Morrill, Laconia, N. H.	S	98	A	92
3865	BUCKWHEAT (*Japanese*) ..... S. A. Schurman & Son, Portsmouth, N. H.	A	98	A	90
3706	BUCKWHEAT (*Japanese*) ..... John B. Varick, Co., Manchester, ter, N. H.	A	99	A	98
3884	CORN (*Pedigree Leaming*) ..... Belknap Co. Exchange, Laconia, N. H.	A	98	A	90
3869	CORN (*Imp. Leaming*) ..... R. L. Costello, Portsmouth, N. H.	A	98	A	96
3964	CORN (*Eureka*) ..... Holbrook Grocery Co., Keene, N. H.	S	100	S	96
3982	CORN (*Early Canada*) ..... Holbrook Grocery Co., Keene, N. H.	S	100	S	95
4020	CORN (*Early Wonder*) ..... Hopkins Bros. & Belcher, Greenfield, N. H.	A	98.77	S	87
4096	CORN (*Pine Tree Ensilage*) ..... C. H. Jameson, Colebrook, N. H.	S	99.5	A	92
3687	CORN (*Sweepstakes, West Branch*) Manchester Hdw. Co., Manchester, N. H.	..	..	A	90

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3985	CORN (*Bloody Butcher*) ..... Merrimack Co. Exchange, Concord, N. H.	A	98	A	90
4008	CORN (*Sweepstakes*) ..... J. J. Moreau & Son, Manchester, N. H.	A	98	A	90
3870	CORN (*Excelsior*) ..... F. W. Neal, Dover, N. H.	A	98	A	90
4064	CORN (*Sweepstakes*) ..... W. F. Peel, Nashua, N. H.	A	98	S	93
3758	CORN (*Red Cob Ensilage*) ..... Rochester Grocery Co., Rochester, N. H.	A	98	A	90
3802	CORN (*Leaming*) ..... J. H. Seavey, Dover, N. H.	S	99.5	S	96
3755	CORN (*Yellow Leaming*) ..... Strafford Co. Grain Mill, Rochester, N. H.	A	99	A	90
3712	CORN (*Golden Bantam*) ..... John B. Varick Co., Manchester, N. H.	99+	..	A	86
3688	CRIMSON CLOVER ..... John B. Varick Co., Manchester N. H.	A	97	A	83
3967	MILLET (*Hungarian*) ..... Abbott Grocery Co., Keene, N. H.	A	98.2	32	84
3768	MILLET (*Hungarian, 93505*) ..... Ayers & Jenkins, Rochester, N. H.	A	98.96	S	90
3781	MILLET (*Japanese, Fancy*) ..... Ayers & Jenkins, Rochester, N. H.	A	97	S	92
3782	MILLET (*Golden 93505*) ..... Ayers & Jenkins, Rochester, N. H.	A	99.22	S	97
3993	MILLET (*Hungarian, Fancy*) ..... J. W. Beede, Meredith, N. H.	A	98	S	80
3883	MILLET (*Hungarian*) .... Belknap Co. Exchange, Laconia, N. H.	A	98	A	80
3906	MILLET (*Japanese*) ..... Belknap Co. Exchange, Laconia, N. H.	A	98	A	80
4094	MILLET (*Hungarian*) ..... Boynton & Ellis, Claremont, N. H.	A	97	S	85
3918	MILLET (*Japanese, Fancy*) ..... O. A. Brown, Ashland, N. H.	A	98.2	S	95
3910	MILLET (*Japanese*) ..... A. F. Burtt Co., Plymouth, N. H.	A	98	S	99
3923	MILLET (*Hungarian*) ..... A. F. Burtt Co., Plymouth, N. H.	A	97	S	85
3944	MILLET (*Hungarian, XX*) ..... Cook Bros., Winchester, N. H.	92.6	98.02	75.5	88
3860	MILLET (*Golden, 82084*) ..... R. L. Costello, Portsmouth, N. H.	A	98.5	74	89
3861	MILLET (*Japanese, Fancy*) ..... R. L. Costello, Portsmouth, N. H.	96.6	98	S	95
3862	MILLET (*Hungarian, 52113*) ..... R. L. Costello, Portsmouth, N. H.	S	98.7	S	94
4026	MILLET (*Choice Golden*) ..... J. Cushing Co., Milford, N. H.	S	96.8	A	80
4042	MILLET (*Japanese, 445*) ..... J. Cushing Co., Milford, N. H.	A	97	S	89
4043	MILLET (*Hungarian, 80827*) ..... J. Cushing Co., Milford, N. H.	A	98.7	S	89

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
4013	MILLET (*Hungarian, Choice*) .... Geo. H. Eames & Son, Keene, N. H.	97.5	98.5	S	95
3763	MILLET (*Japanese*) ..... Eugene C. Foss Co., Rochester, N. H.	A	97.3	S	95
3767	MILLET (*Japanese*) ..... Eugene C. Foss Co., Rochester, N. H.	A	98	A	90
3776	MILLET (*Pan American*) ..... Eugene C. Foss Co., Rochester, N. H.	A	98	A	85
4050	MILLET (*Golden Fancy*) ..... W. F. French, Milford, N. H.	A	98	A	85
4051	MILLET (*Japanese*) ..... W. F. French, Milford, N. H.	A	97	A	80
3947	MILLET (*Japanese*) ..... Holbrook Grocery Co., Keene, N. H.	A	97	S	95
3954	MILLET (*Hungarian, Monadnock*) . Holbrook Grocery Co., Keene, N. H.	A	98	S	90
3997	MILLET (*Hungarian, XX*) ..... Holbrook Grocery Co., Keene, N. H.	S	97	A	85
4021	MILLET (*Japanese*) ..... Hopkins Bros. & Belcher, Greenfield, N. H.	S	99.03	A	90
3750	MILLET (*Hungarian, Fancy*) ..... Virgil P. Hersey & Co., Somersworth, N. H.	S	98	A	88
3851	MILLET (*Hungarian, Fancy*) ..... J. Jones & Son, Alton, N. H.	A	97	S	90
4090	MILLET (*Japanese, Emerson*) .... J. H. Kinney, Claremont, N. H.	A	98	A	92
3691	MILLET (*Japanese*) ..... Manchester Hardware Co., Manchester, N. H.	A	97	S	92
3703	MILLET (*Hungarian, Choice*) ..... Manchester Hardware Co., Manchester, N. H.	A	98	83.5	90
3710	MILLET (*Golden*) ..... Manchester Hardware Co., Manchester, N. H.	A	99.6	S	93
3714	MILLET (*Japanese, Fancy*) ..... Manchester Hardware Co., Manchester, N. H.	A	98.75	S	90
3989	MILLET (*Golden*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	A	98	S	90
4009	MILLET (*Japanese*) ..... J. J. Moreau & Son, Manchester, N. H.	A	97	A	88
3825	MILLET (*Japanese, Ex. 42622*) ... J. H. Morrill, Laconia, N. H.	A	95.5	S	96
3840	MILLET (*Hungarian*) ..... J. H. Morrill, Laconia, N. H.	98.6	99.6	S	88
4080	MILLET (*Golden, Emerson*) ..... Nashua Beef Co., Nashua, N. H.	A	96	A	90
4082	MILLET (*Hungarian, Emerson*) ... Nashua Beef Co., Nashua, N. H.	A	91	A	86
3872	MILLET (*Hungarian*) ..... F. W. Neal, Dover, N. H.	A	98	80	90

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
4057	MILLET (*Japanese, Emerson*) .... W. F. Peel, Nashua, N. H.	A	99	S	98
4065	MILLET (*Hungarian*) ..... W. F. Peel, Nashua, N. H.	A	97	S	86
4068	MILLET (*Hungarian*) ..... W. R. Peterson, Nashua, N. H.	A	98	A	80
3956	MILLET (*Japanese*) ..... A. D. Potter & Co., Winchester, N. H.	A	98	31	90
3979	MILLET (*Hungarian*) ..... A. D. Potter & Co., Winchester, N. H.	A	98	S	90
3828	MILLET (*Japanese, Fancy*) ..... Rand & Dearborn, Laconia, N. H.	A	98.2	33	95
3845	MILLET (*Hungarian, 3731*) ..... Read-Esty Co., Farmington, N. H.	A	98.48	S	90
3846	MILLET (*Japanese, 3665*) ..... Read-Esty Co., Farmington, N. H.	A	94.25	82.5	95
3754	MILLET (*Hungarian, 19700*) ..... Rochester Grocery Co., Rochester, N. H.	A	99.5	S	93
3757	MILLET (*Japanese*) ..... Rochester Grocery Co., Rochester, N. H.	A	99.22	A	90
3864	MILLET (*Japanese, Fancy*) ..... S. A. Schurman & Son, Ports- N. H.	S	98	A	90
3807	MILLET (*Japanese*) ..... J. H. Seavey, Dover, N. H.	A	99.02	A	85
3903	MILLET (*Hungarian*) ..... Shepard Bros., Franklin, N. H.	A	97.55	A	86
3904	MILLET (*Japanese, 881*) ..... Shepard Bros., Franklin, N. H.	A	98	A	92
3887	MILLET (*Japanese*) ..... C. P. Stevens, Franklin, N. H.	A	98	S	95
3935	MILLET (*Hungarian, 80325*) ..... Thompson & Hoague Co., Concord, N. H.	S	98.2	S	84
3695	MILLET (*Hungarian*) ..... John B. Varick Co., Manchester, N. H.	A	98	S	94
3701	MILLET (*Golden*) ..... John B. Varick Co., Manchester, N. H.	97.6	..	A	90
4029	MILLET (*Hungarian, Fancy*) ..... Walbridge & Taylor, Peterboro, N. H.	A	97 6	A	90
3780	OATS (*Northern Wonder*) ..... Ayers & Jenkins, Rochester, N. H.	A	98	S	94
3917	OATS (*Extra Fancy White Mtn.*) . W. B. Brown, Ashland, N. H.	S	99	S	97
4011	OATS (*Crosby's Fancy*) ..... Geo. H. Eames & Son, Keene, N. H.	S	99	S	97
3771	OATS (*Swedish Select*) ..... Eugene C. Foss Co., Rochester, N. H.	S	98	A	90
4073	OATS ..... Hill Hdw. & Paint Co., Nashua, N. H.	A	98	90	..
3963	OATS (*White Mtn.*) ..... Holbrook Grocery Co., Keene, N. H.	A	99	S	97
4038	OATS (*Abundance*) ..... Kendall & Wilkins, Milford.	A	98	S	93

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3732	OATS (*Swedish*) ..... Manchester Hdw. Co., Manchester, N. H.	S	99	31	95
3984	OATS (*Pennant*) ..... Meredith Grain Co., Meredith, N. H.	98.8	99.5	A	90
4003	OATS (*Selected*) ..... J. J. Moreau & Son, Manchester, N. H.	A	98	S	90
3873	OATS (*Welcome*) ..... F. W. Neal, Dover, N. H.	A	98	A	93
3891	OATS (*White Mtn.*) ..... O. A. Plummer, Tilton, N. H.	A	99	A	97
3894	OATS (*Pennant*) ..... O. A. Plummer, Tilton, N. H.	98 3	99.5	85	..
3880	OATS (*Excelsior*) ..... S. A. Schurman & Son, Portsmouth, N. H.	A	98	S	90
3805	OATS ..... J. H. Seavey, Dover, N. H.	A	97.1	S	96
3882	OATS (*Welcome*) ..... Shepard Bros., Franklin, N. H.	A	98	A	93
3941	OATS (*Swedish 0519*) ..... C. P. Stevens, Franklin, N. H.	A	98.5	S	92
3741	OATS (*Ti-O-La-Fancy*) ..... Strafford Co. Grain Mill, Rochester, N. H.	S	99	S	98
3742	OATS (*Hy-grade Fancy*) ..... Strafford Co. Grain Mill, Rochester, N. H.	S	99	S	97
3932	OATS (*Best*) ..... Thompson & Hoague Co., Concord N. H.	94.8	..	50	94
3727	OATS (*Swedish Select 513*) ..... John B. Varick Co., Manchester, N. H.	A	98	80.5	95
3766	PEAS (*Canada Field*) ..... Ayers & Jenkins, Rochester, N. H.	A	95.55	A	96
3945	PEAS (*Canada Seed*) ..... Cook Bros., Winchester, N. H.	A	97	A	95
3972	PEAS (*Cow Peas*) ..... Holbrook Grocery Co., Keene, N. H.	A	98	A	93
4083	PEAS (*Canada, 57677*) ..... C. H. Jameson, Colebrook, N. H.	S	99.5	A	98
4036	PEAS (*Canada Field*) ..... Kendall & Wilkins, Milford, N. H.	A	98	S	98
4005	PEAS (*Canada*) ..... J. J. Moreau & Son, Manchester, N. H.	A	98	A	92
3863	PEAS (*Canada Field*) ..... S. A. Schurman & Son, Portsmouth, N. H.	A	98	A	90
3803	PEAS (*Canada Field*) ..... J. H. Seavey, Dover, N. H.	S	99.5	A	93
3720	PEAS (*Canada Field*) ..... John B. Varick Co., Manchester, N. H.	S	99	A	98
3881	RAPE (*Essex*) ..... Belknap Co. Farmers' Exchange, Laconia, N. H.	A	98	A	90
4085	RAPE (*Dwarf Essex, 05736*) ..... C. H. Jameson, Colebrook, N. H.	S	99.5	A	95
4037	RAPE (*Dwarf Essex*) ..... Kendall & Wilkins, Milford, N. H.	A	98	A	96

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
4089	RAPE (*Dwarf Essex, Emerson*) .... J. H. Kinney, Claremont, N. H.	A	98	A	90
4056	RAPE (*Dwarf Essex*) ..... W. R. Peterson, Nashua, N. H.	A	98	A	90
3966	RED CLOVER (*24429*) ..... Abbott Grocery Co., Keene, N. H.	A	97.72	S	92
3785	RED CLOVER (*Pine Tree, 92818*) .. Ayers & Jenkins, Rochester, N. H.	97.7	98.86	96	..
3939	RED CLOVER (*Pan American*) ..... Bailey & Rogers, Tilton, N. H.	S	98.5	A	90
3889	RED CLOVER ..... Belknap Co. Farmers' Exchange, Laconia, N. H.	S	99.5	A	90
4093	RED CLOVER ..... Boynton & Ellis, Claremont, N. H.	A	97.3	S	92
3921	RED CLOVER ..... O. A. Brown, Ashland, N. H.	A	93	A	90
3915	RED CLOVER (*White Mtn.*) ..... W. B. Brown, Ashland, N. H.	A	99.5	S	94
3924	RED CLOVER ..... A. F. Burtt Co., Plymouth, N. H.	A	95	S	90
3813	RED CLOVER (*Medium, Krop-King*) Carr's Cash Grocery, Dover, N. H.	97.6	99	A	95
4044	RED CLOVER (*Medium*) ..... J. Cushing Co., Milford, N. H.	A	98.64	S	97
4017	RED CLOVER (*Prime*) ..... Geo. H. Eames & Son, Keene, N. H.	A	97	A	90
3777	RED CLOVER (*Pan American*) .... Eugene C. Foss Co., Rochester, N. H.	S	98	A	90
4053	RED CLOVER (*Pan American*) .... W. F. French, Milford, N. H.	A	98	A	90
3974	RED CLOVER (*White Mtn.*) ..... Holbrook Grocery Co., Keene, N. H.	A	99 5	S	94
4023	RED CLOVER (*Crown*) ..... Hopkins Bros. & Belcher, Greenfield, N. H.	A	99.35	S	95
4086	RED CLOVER (*Medium, 24439*) .... C. H. Jameson, Colebrook, N. H.	A	98.5	A	93
3822	RED CLOVER (*Eureka*) ..... C. L. Jenness Hdw. Co., Dover, N. H.	A	98	S	90
3693	RED CLOVER ..... Manchester Hdw. Co., Manchester, N. H.	A	98	A	85
3986	RED CLOVER (*Medium*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	S	98.5	S	98
3879	RED CLOVER (*Liberty, 3642*) ..... F. W. Neal, Dover, N. H.	A	96 78	A	81.5
4060	RED CLOVER (*Emerson*) ..... W. F. Peel, Nashua, N. H.	A	98	S	85
3959	RED CLOVER (*Pan American*) .... A. D. Potter & Co., Winchester, N. H.	A	98	S	90
3844	RED CLOVER (*Liberty, 3691*) ..... Read-Esty Co., Farmington, N. H.	A	98.44	A	95
3938	RED CLOVER (*Pan American*) .... J. E. Reed & Son, Ashland, N. H.	A	97.5	S	90
3818	RED CLOVER ..... J. H. Seavey, Dover, N. H.	96.4	98 22	A	85
3751	RED CLOVER .... Somersworth Grain Co., Somersworth, N. H.	S	99	A	90

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3885	RED CLOVER ..... C. P. Stevens, Franklin, N. H.	A	98.5	S	95
3929	RED CLOVER (*24216*) ..... Thompson & Hoague Co., Concord, N. H.	A	98.32	75.5	91
3699	RED CLOVER (*Mammoth*) ..... John B. Varick Co., Manchester, N. H.	S	99	A	88
3708	RED CLOVER (*Medium*) ..... John B. Varick Co., Manchester, N. H.	A	98	A	90
4028	RED CLOVER (*XXX*) ..... Walbridge & Taylor, Peterboro, N. H.	A	97	A	92
4095	RYE (*Spring, 5914*) ..... C. H. Jameson, Colebrook, N. H.	A	98.04	A	94
3821	RYE (*Spring*) ..... C. L. Jenness Hdw. Co., Dover, N. H.	96 9	98	A	90
4034	RYE (*Spring*) ..... Kendall & Wilkins, Milford, N. H.	91.4	99	A	93
3988	RYE (*Rosen*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	A	98	S	90
4006	RYE (*Spring*) ..... J. J. Moreau & Son, Manchester, N. H.	92.1	98	A	90
3871	RYE (*Rosen, 4825*) ..... F. W. Neal, Dover, N. H.	S	99	A	90
4058	RYE (*Spring, 5913*) ..... W. F. Peel, Nashua, N. H.	A	93.83	A	92
3713	RYE (*Spring*) ..... John B. Varick Co., Manchester, N. H.	A	98	A	92
3831	RYE (*Spring, 5911*) ..... E. T. Willson, Farmington, N. H.	A	96.42	S	98
3717	SOY BEANS (*Medium Green*) ..... John B. Varick Co., Manchester, N. H.	A	96	A	92
3895	SUDAN GRASS ..... C. P. Stevens, Franklin, N. H.	A	97.07	S	91
3899	SWEET CLOVER (*White Mtn.*) ..... Bryant & Lawrence, Tilton, N. H.	A	99.5	S	95
3961	TIMOTHY (*Old Home, 66974*) ..... Abbott Grocery Co., Keene, N. H.	A	98.1	S	92
3968	TIMOTHY (*Pine Tree, 661524*) .... Abbott Grocery Co., Keene, N. H.	A	99.65	S	94
3969	TIMOTHY (*Fancy Mastiff, 669611*) Abbott Grocery Co., Keene, N. H.	..	99.5	S	95
3787	TIMOTHY (*King*) ..... Ayers & Jenkins, Rochester, N. H.	S	99.6	A	95
3788	TIMOTHY (*Pine Tree, 92818*) .... Ayers & Jenkins, Rochester, N. H.	S	99.65	S	96
3940	TIMOTHY (*Pan American*) ..... Bailey & Rogers, Tilton, N. H.	S	99.5	S	94
3996	TIMOTHY (*66974*) ..... Ball & Ripley, Winchester, N. H.	A	98.1	S	92
3920	TIMOTHY (*Pine Tree*) ..... O. A. Brown, Ashland, N. H.	S	99 6	S	93
3912	TIMOTHY ..... A. F. Burtt Co., Plymouth, N. H.	A	99	S	91
3922	TIMOTHY (*White Mtn.*) ..... A. F. Burtt Co., Plymouth, N. H.	S	99.8	84	96
3812	TIMOTHY ..... Carr's Cash Grocery, Dover, N. H.	93.1	98	83	92

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3855	TIMOTHY (*Pine Tree, 66791*) ..... R. L. Costello, Portsmouth, N. H.	S	99.6	S	94
4046	TIMOTHY (*661477*) ..... J. Cushing Co., Milford, N. H.	A	99.6	S	93
4016	TIMOTHY (*Prime*) ..... Geo. H. Eames & Son, Keene, N. H.	A	97	84.5	95
3779	TIMOTHY (*Pan American*) ..... Eugene C. Foss Co., Rochester, N. H.	S	99.5	S	90
4041	TIMOTHY (*Pan American*) ..... W. F. French, Milford, N. H.	A	99.5	S	94
3747	TIMOTHY (*Pan American*) ..... Virgil P. Hersey & Co., Somersworth, N. H.	S	99.5	S	90
4070	TIMOTHY (*Pan American*) ..... Hill Hdw. & Paint Co., Nashua, N. H.	A	99.5	A	90
3949	TIMOTHY (*Special*) ..... Holbrook Grocery Co., Keene, N. H.	S	98	S	93
3951	TIMOTHY (*Globe*) ..... Holbrook Grocery Co., Keene, N. H.	S	99.08	3	90
3952	TIMOTHY ..... Holbrook Grocery Co., Keene, N. H.	S	99	A	91
3976	TIMOTHY (*White Mtn.*) ..... Holbrook Grocery Co., Keene, N. H.	S	98.8	S	96
4025	TIMOTHY (*King*) ..... Hopkins Bros. & Belcher, Greenfield, N. H.	94.6	99.6	S	95
4084	TIMOTHY (*Bison, 661389*) ..... C. H. Jameson, Colebrook, N. H.	A	98	S	91
4035	TIMOTHY ..... Kendall & Wilkins, Milford, N. H.	A	99.6	3.5	93
3689	TIMOTHY (*Japanese*) ..... Manchester Hdw. Co., Manchester, N. H.	S	99.5	S	93
3983	TIMOTHY (*Pan American*) ..... Meredith Grain Co., Meredith, N. H.	A	99.5	S	90
3990	TIMOTHY (*Fancy*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	..	99.5	S	90
3841	TIMOTHY (*Pine Tree, 661069*) .... J. H. Morrill, Laconia, N. H.	S	99.6	95	..
4081	TIMOTHY (*Emerson*) ..... Nashua Beef Co., Nashua, N. H.	A	98	S	95
4063	TIMOTHY (*Bay State*) ..... W. F. Peel, Nashua, N. H.	A	99.5	A	95
3843	TIMOTHY (*King*) ..... Pelletier Bros., Farmington, N. H.	S	99.5	S	95
3960	TIMOTHY (*Pan American*) ..... A. D. Potter & Co., Winchester, N. H.	A	99.5	S	94
3995	TIMOTHY (*Old Home*) ..... E. E. Prentice, Winchester, N. H.	98.8	99.5	88.5	95
3829	TIMOTHY (*Pine Tree, 66434*) ..... Rand & Dearborn, Laconia, N. H.	S	99 6	S	95
3849	TIMOTHY (*Liberty, 5668*) ..... Read-Esty Co., Farmington, N. H.	S	99.56	S	91
3943	TIMOTHY (*Gold Medal*) ..... C. M. Roberts, Meredith, N. H.	A	99.7	S	94

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3756	TIMOTHY (*Pine Tree, 661168*) .... Rochester Grocery Co., Rochester, N. H.	S	99.6	S	95
3836	TIMOTHY (*Pine Tree, 66653*) ..... H. C. Sanborn, Laconia, N. H.	S	99.6	S	95
3866	TIMOTHY (*Bison, 65905*) ..... S. A. Schurman & Son, Portsmouth, N. H.	97.1	98.2	S	90
3820	TIMOTHY (*Pine Tree*) ..... J. H. Seavey, Dover, N. H.	S	99.6	A	95
3898	TIMOTHY (*Gem*) ..... Shepard Bros., Franklin, N. H.	A	98	S	93
3901	TIMOTHY (*Bay State*) ..... Shepard Bros., Franklin, N. H.	S	99.5	S	95
3746	TIMOTHY (*Pine Tree*) ..... Somersworth Grain Co., Somersworth, N. H.	S	99.6	S	95
3892	TIMOTHY (*XX*) ..... C. P. Stevens, Franklin, N. H.	A	97	84.5	95
3931	TIMOTHY (*Pine Tree, 66665*) ..... Thompson & Hoague Co., Concord, N. H.	S	99.6	S	95
3722	TIMOTHY (*Durham, 66434*) ..... John B. Varick Co., Manchester, N. H.	S	99 6	S	95
3723	TIMOTHY (*66791*) ..... John B. Varick Co., Manchester, N. H.	A	99.6	A	94
3724	TIMOTHY (*Durham, 66782*) ..... John B. Varick Co., Manchester, N. H.	S	99.6	S	93
4031	TIMOTHY (*Special*) ..... Walbridge & Taylor, Peterboro, N. H.	S	98	A	93
3762	TURNIP (*Rutabega, L. I. Purple Top*) ..... Ayers & Jenkins, Rochester, N. H.	98	..	S	95
4027	TURNIP (*Rutabega, L. I. Improved*) W. F. French, Milford, N. H.	S	92	91	..
4055	TURNIP (*Rutabega*) ..... W. R. Peterson, Nashua, N. H.	A	98	65	88
3868	VETCH (*Winter*) ..... R. L. Costello, Portsmouth, N. H.	A	96	2.5	88
4033	VETCH (*Spring*) .... Kendall & Wilkins, Milford, N. H.	A	98	A	90
3987	VETCH (*Winter*) ..... Merrimack Co. Farmers' Exchange, Concord, N. H.	A	99	A	85
3711	VETCH (*Spring*) ..... John B. Varick Co., Manchester, N. H.	99.8	..	S	83
3975	WHEAT (*Spring, White Mtn.*).. Holbrook Grocery Co., Keene, N. H.	A	99.37	S	97
3705	WHEAT (*Spring, Marquis C*) ..... Manchester Hdw. Co., Manchester, N. H.	A	99.7	S	96
4007	WHEAT (*Spring*) ..... J. J. Moreau & Son, Manchester, N. H.	A	98	A	90
3877	WHEAT (*Winter, Golden Chaff*) .. F. W. Neal, Dover, N. H.	A	98.5	85	98
3888	WHEAT (*Spring*) ..... Shepard Bros., Franklin, N. H.	A	99	A	93
3692	WHEAT (*Spring*) ..... John B. Varick Co., Manchester, N. H.	A	98 8	A	96

A—Above
S—Satisfactory

SEED EXAMINATION, 1922—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
3721	WHEAT (*Spring, 682*) ..... John B. Varick Co., Manchester, N. H.	A	99.8	A	96
3764	WHITE CLOVER ..... Ayers & Jenkins, Rochester, N. H.	99.5	..	S	90
3859	WHITE CLOVER (*2634*) ..... R. L. Costello, Portsmouth, N. H.	A	95.65	82	91
4052	WHITE CLOVER (*Fancy*) ..... W. F. French, Milford, N. H.	A	96	S	90
4072	WHITE CLOVER (*Choice*) ..... Hill Hdw. & Paint Co., Nashua, N. H.	A	93	S	90
3948	WHITE CLOVER (*Imported*) ..... Holbrook Grocery Co., Keene, N. H.	A	96.05	60.5	..
4001	WHITE CLOVER (*Choice*) ..... J. J. Moreau & Son, Manchester, N. H.	A	96	60.5	90
4076	WHITE CLOVER (*Emerson*) ..... Nashua Beef Co., Nashua, N. H.	A	98	S	96
4069	WHITE CLOVER ..... W. R. Peterson, Nashua, N. H.	A	98	73.5	94
3827	WHITE CLOVER ..... H. C. Sanborn, Laconia, N. H.	A	99.6	87.5	95
3810	WHITE CLOVER ..... J. H. Seavey, Dover, N. H.	S	93.5	S	85
3936	WHITE CLOVER (*269*) ..... Thompson & Hoague, Concord, N. H.	A	95.35	86	..
3704	WHITE CLOVER ..... John B. Varick Co., Manchester, N. H.	A	95	A	91

A—Above
S—Satisfactory

TABLE SHOWING RESULTS OF TESTS AND EXAMINATION OF SAMPLES OF SEEDS SUBMITTED BY THE COMMISSIONER OF AGRICULTURE FROM JULY 1, 1921, TO JUNE 30, 1922.

Kind of Seed	Number	Purity				Germination			
		Highest Per cent.	Lowest Per cent.	Average Per cent.	Standard	Highest Per cent.	Lowest Per cent.	Average Per cent.	Standard
Alfalfa	6	99.6	98 8	99.3	98	97.0	53.5	85.4	85-90
Alsike	32	99.3	95.2	97.4	95	96.0	38.0	88.7	75-80
Barley	22	99.6	95.0	98.5	99	100.0	72 5	92.8	90-95
Buckwheat	7	99.8	95.4	98.1	99	100.0	94.0	97.0	90-95
Corn	15	99+	99+	99+	99	100.0	86 0	95.5	90-95
Millet	61	99.9	93.2	98.4	99	98.0	32.0	87.5	85-90
Oats	21	99.8	94.8	98.6	99	98 0	50.0	88 8	90-95
Red Clover	31	99.6	96.4	98.3	98	99.0	75.5	92.4	85-90
Rye	9	99.7	91 4	96.5	99	100.0	87.0	94.7	90-95
Timothy	50	99.9	93.1	98.8	98	97.0	3.5	87 1	85-90
Wheat	7	99.9	98 7	99.4	99	99.0	85.0	95 6	90-95
White Clover ...	12	99.5	93.5	97.3	95	92.0	60 5	81.4	75-80
Miscellaneous ...	28								
Total	301								